

Work Order ID 104722

104722

Page 1

July-17-13 9:23:16 AM

Item ID: **D4635-4** Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Ceiling Panel, RH
 Start Date: 7/17/13 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 7/25/13 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: ML5 Date: 13-07-17 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4635	C

100	HAND FINISHING THERMOFORMING	0.00							
100									
Thermoform	Memo	0.00							
Thermoforming Machine	Cut Blanks								

105	Dry Material	0.00							
105									
HandThermo	Memo	0.00							
Hand Finishing Thermoforming	Dry Sheet as per QSI022 KYDEX								

Temp: 150 F

Time IN: 7:00 pm 13/07/15

Time OUT: 7:00 am 13/07/16

Scrap
 Setup
 Change x1

DAS
 07
 2-89
 13/07/16

DAS
 07
 2-89
 13/07/16

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July-17-13 9:23:16 AM

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Page 2

Item ID: D4635-4 Accept *N9000040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Aft Ceiling Panel, RH
 Start Date: 7/17/13 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 7/25/13 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110 *110* Thermoform Thermoforming Machine	THERMOFORMING MACHINE Memo Thermoform as per Dwg. D4635-4 and Folio FTA150 Dwg. Rev. <u>C</u> Folio Rev. <u>C</u> Visually inspect for proper formation and texture	0.00 0.00				x1	x1		DAS 07 9-89 13/07/16 PTO WH LAST PAGE
130 *130* Thermoform Thermoforming Machine	HAND FINISHING THERMOFORMING Memo Trim to Finished Dimensions	0.00 0.00				x1			DL 13/10/10
140 *140* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00				x1			DL 13/10/11

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Page 3

July-17-13 9:23:16 AM

Item ID: D4635-4 Accept *N900040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: Aft Ceiling Panel, RH
Start Date: 7/17/13 Start Qty: 1.00 *1* Cust Item ID:
Required Date: 7/25/13 Req'd Qty: 1.00 *1* Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC5- Inspect part completeness to step on W/O	0.00							
150									
QC	Memo	0.00							
Quality Control									
160	Packaging	0.00							
160									
Packaging	Memo	0.00							
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.00							
Quality Control									

W 34.29

Picklist Print

Page 1

July-17-13 9:23:16 AM

Work Order ID: 104722

Parent Item: D4635-4

Start Date: 7/17/13

Required Date: 7/25/13

Parent Item Name: Aft Ceiling Panel, RH

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev. A New Issue 12/05/07 DL VERIFIED BY:JLM IPP Rev. B Dwg. Update
12/11/08 DL IPP Rev C Dwg. Update 13/07/09 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MKYD6185S.080-P3- 52068		Purchased	No			100	sf	2,255.4554	8.49	9.4333333			

Kydex steel grey

Location

therm

Loc Qty

2255.455401

Loc Code

119476

120.100001

121902

1060.697

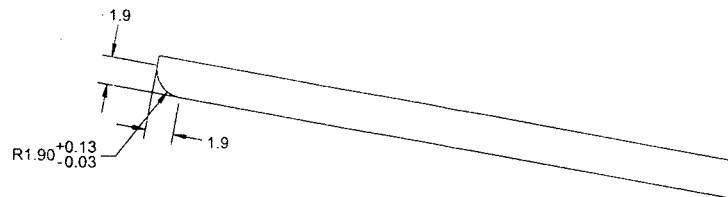
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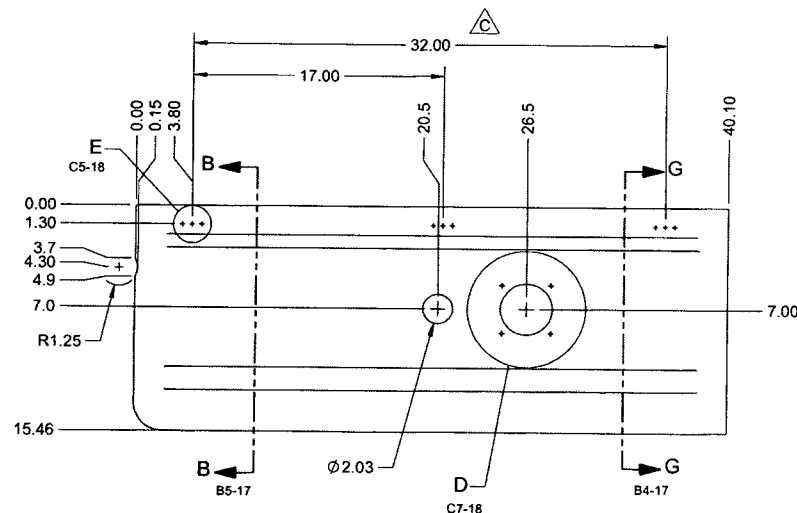
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CL

13/10/11



SECTION H-H B2-15

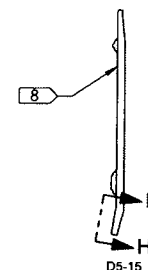


D4635-3 LH. AFT CEILING PANEL

NOTES:

- 1) MATERIAL: KYDEX 6185 SHEET, 0.080 THICK,
P3-VELOUR MATTE, STEEL GRAY #52068
PER DART SPEC MKYD6185S.080-P3-52068
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 2.60 lbs
- 8) TEXTURE ON THIS SIDE
- 9) TRIM D4635-3 PER TOOL DT9841
- 10) THERMOFORM D4635-3 PER QSI 022 USING DT9849 TOOL
MIN. THICKNESS AFTER FORMING:
RIDGES/EDGES = 0.060
ELSEWHERE = 0.070

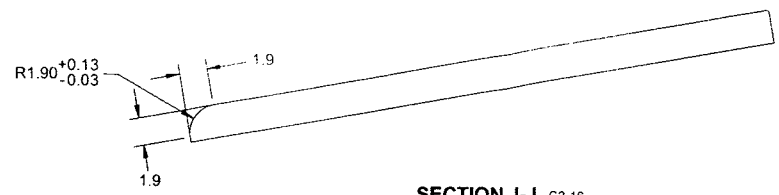
STANDARD
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
VENDOR OF
WORK ORDER
104722 MLC
13-07-17



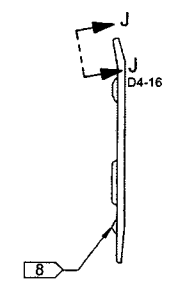
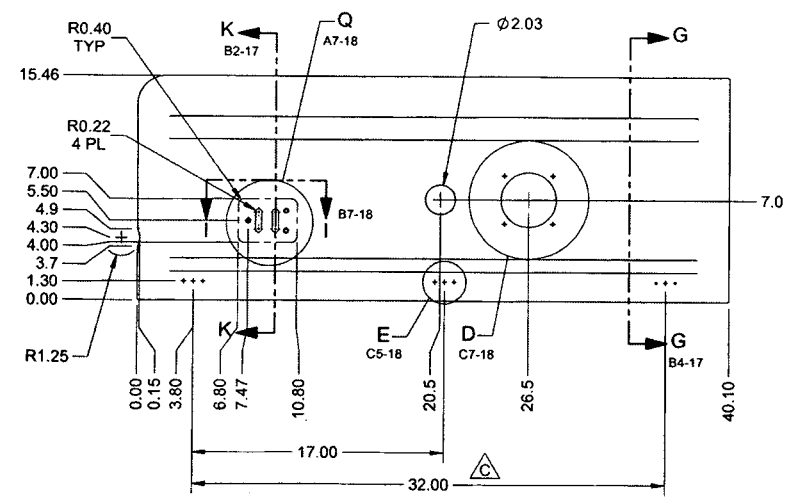
RELEASED
2013-07-15

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	PC	DRAWING NO.	REV. C
MFG. APPR.	PC	D4635	SHEET 15 OF 18
APPROVED	PC	TITLE	SCALE
DE APPR.	PC	OUTBOARD CEILING PANELS	NTS
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10-1722



SECTION J-J C2-16



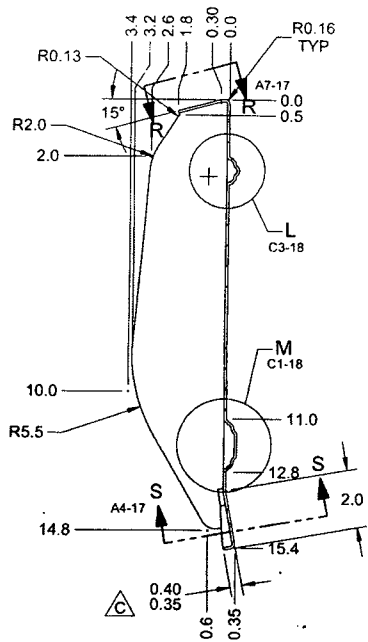
- NOTES:
- 1) MATERIAL: KYDEX 6185 SHEET, 0.080 THICK, P3-VELOUR MATTE, STEEL GRAY #52068 PER DART SPEC MKYD6185S.080-P3-52068
 - 2) FINISH: N/A
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 2.60 lbs
 - 8) TEXTURE ON THIS SIDE
 - 9) TRIM D4635-4 PER TOOL DT9842
 - 10) THERMOFORM D4635-4 PER QSI 022 USING DT9850 TOOL
MIN. THICKNESS AFTER FORMING:
RIDGES/EDGES = 0.060
ELSEWHERE = 0.070

D4635-4 RH, AFT CEILING PANEL

RELEASED
2013-07-15

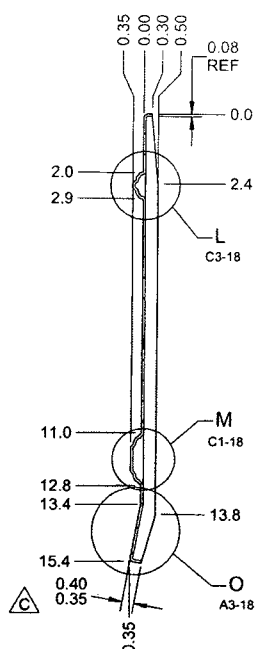
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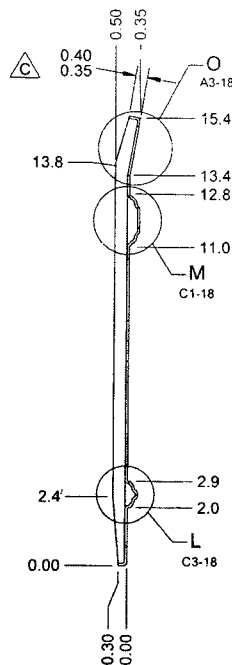
SECTION A-A
SECTION A-A' OPPOSITE
SCALE 2X

B3-13
B3-14



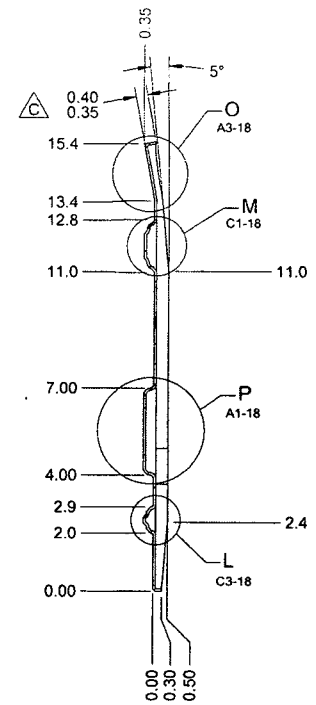
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B7-13
B7-14



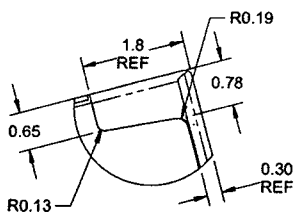
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B4-15
B4-16



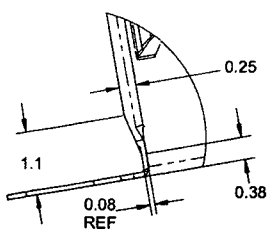
SECTION K-K
SCALE 2X

C6-16



AUXILIARY VIEW R-R
SECTION R-R' OPPOSITE
SCALE 2X

D7-17



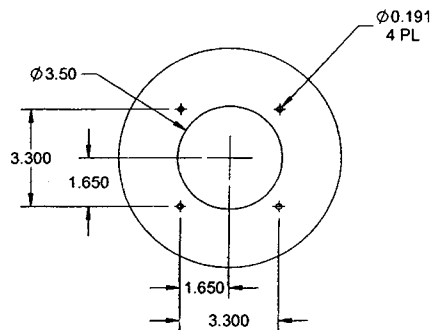
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SECTION S-S' OPPOSITE
SCALE 2X

B7-17

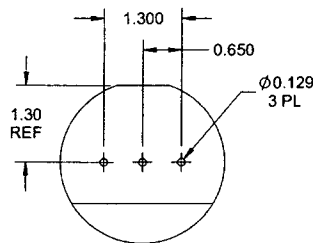
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2013-07-15

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DRAWN	RF	DRAWING NO.	REV. C
CHECKED	DC	D4635	SHEET 17 OF 18
MFG. APPR.	AL	TITLE	SCALE
APPROVED	AL	OUTBOARD CEILING PANELS	NTS
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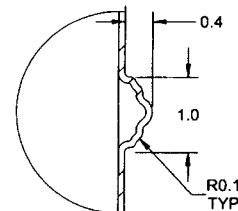
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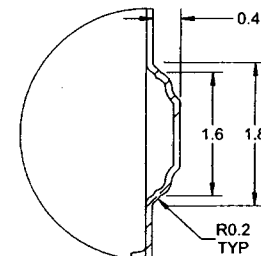
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B4-13
B3-14
B5-15
B5-16



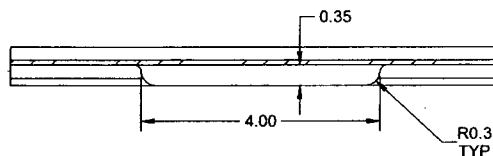
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B6-14
C6-15
B5-16



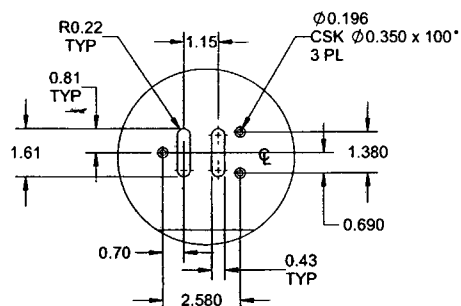
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B4-17
C5-17
C7-17



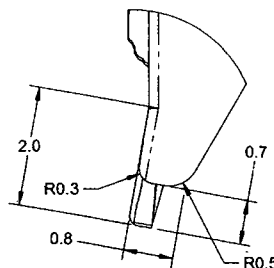
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C3-17
C5-17
C7-17



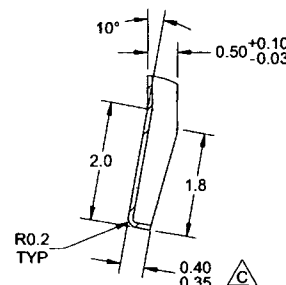
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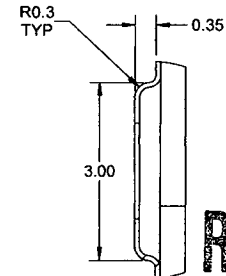
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SCALE 2X
C5-16



DETAIL N
SCALE 2X
B2-13



DETAIL O
SCALE 2X
D2-17
D3-17
B5-17



DETAIL P
SCALE 4X
C2-17

RELEASED
2013-07-15

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	BC	DRAWING NO.	REV. C
MFG. APPR.	BC	D4635	SHEET 18 OF 18
APPROVED	BC	TITLE	SCALE
DE APPR.	BC	OUTBOARD CEILING PANELS	NTS
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8 7 6 5 4 3 2 1

DART AEROSPACE LTD		Work Order: 104722
Description: AFT CEILING PANEL, RH		Part Number: D4635-4
Inspection Dwg: D4635 Rev: C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST
THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than <u>N/A</u> "				
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: DL

Date: 13/07/16

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø 2.03		2.0"	✓		Hand 02-03	
Ø 3.50"		3.52"	✓		"	
Ø 1.91"		1.9"	✓		"	
Ø 1.29"		1.29"	✓		"	
Ø 1.96"		1.96"	✓		"	
1.30"		1.30"	✓			

Measured by: DL

Date: 13/10/11

Audited by: _____

Date: _____

Preliminary Approval: _____

Date: _____

Rev	Date	Change	Revised by	Approved
B	10.04.14	Added preliminary approval	KJ	

10.04.14

NCR: ☒ Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: AW Date: 13/12/05QA Closed: AK Date: 13/12/05

Work Order: <u>104722</u>	DISPOSITION Rework <input type="checkbox"/> Scrap <input checked="" type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS			
Part No. <u>D4635-4</u>		Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input checked="" type="checkbox"/>
NCR No. <u>13-3303</u>		Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>
		Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input checked="" type="checkbox"/>
		Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	<u>13/12/04</u>	<u>100</u>	<u>1</u>	<u>AW139 Ceiling panels material have change for</u> <u>MilxS. 93- F6006-07 and where adding foam sandwich board</u>	<u>✓</u> <u>13-12-04</u>	<u>engineering change material</u> <u>463.80</u>	<u>DAS</u> <u>27</u> <u>9-89</u> <u>13/12/04</u>	<u>DAS</u> <u>27</u> <u>9-89</u> <u>13/12/04</u>	<u>DAS</u> <u>27</u> <u>9-89</u> <u>13/12/04</u>
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input checked="" type="checkbox"/> Other
<u>Engineering change</u>				